Listing of Claims:

1. (Original) A data architecture for managing Quality of Service (QoS) and/or bandwidth allocation in a Regional/Access Network (RAN) that provides end-to-end transport between a Network Service Provider (NSP) and/or an Application Service Provider (ASP), and a Customer Premises Network (CPN) that includes a Routing Gateway (RG), the architecture comprising:

a NSP access session record maintained at the RAN that defines QoS and/or bandwidth allocation for an access session associated with the RG and the NSP;

a corresponding NSP access session record maintained at the NSP associated with the access session, wherein the NSP access session record at the RAN and the corresponding NSP access session record at the NSP both define a QoS and/or bandwidth allocation specified by the NSP associated with the session or both define a QoS and/or bandwidth allocation specified by the RAN;

an application flow record maintained at the RAN that defines QoS and/or bandwidth allocation for an application flow associated with the RG and the ASP; and

a corresponding application flow record maintained at the ASP associated with the application flow, wherein both the application flow record at the RAN and the corresponding application flow record at the ASP define a QoS and/or bandwidth allocation specified by the ASP.

2. (Original) The data architecture of claim 1 further comprising:

a corresponding NSP access session record maintained at the RG associated with the access session, wherein the NSP access session record at the RAN and the corresponding NSP access session record at the RG both define a QoS and/or bandwidth allocation specified by the NSP associated with the session or both define a QoS and/or bandwidth allocation specified by the RAN; and

a corresponding application flow record maintained at the RG associated with the application flow, wherein both the application flow record at the RAN and the corresponding application flow record at the RG define a QoS and/or bandwidth allocation specified by the

ASP.

3. (Original) The data architecture of claim 2 wherein the application flow associated with the RG and the ASP comprises an application flow associated with an access session that supports application service provider communications and wherein the data architecture further comprises:

an application service provider session record maintained at the RAN that defines QoS and/or bandwidth allocation for the access session that supports application service provider communications; and

a corresponding application service provider session record maintained at the ASP; and

a corresponding application service provider session record maintained at the RG, wherein the application service provider session record at the RAN and the corresponding application service provider session records at the ASP and RG each define a QoS and/or bandwidth allocation specified by the RAN or each define a QoS and/or bandwidth allocation specified by the ASP.

4. (Original) The data architecture of claim 3 wherein the NSP access session comprises a Point-to-Point Protocol (PPP) access session and wherein the application flow associated with the RG and the ASP comprises an application flow associated with a Point-to-Point Protocol (PPP) access session.

5. (Original) The data architecture of claim 2 wherein the RG is communicatively coupled to the RAN by an xDSL line that supports the access session and wherein the data record further comprises:

a DSL line element maintained at the RG associated with the xDSL line that includes a line identifier and the synchronization rate of the xDSL line; and

a corresponding DSL line element including the line identifier and the synchronization rate of the xDSL line maintained at the RAN.

6. (Original) The data architecture of claim 2 further comprising:

a service provider record maintained at the NSP that identifies the NSP;

a service provider record maintained at the ASP that identifies the ASP; and

corresponding service provider records maintained at the RAN that identify the NSP and the ASP, respectively.

7. (Original) The data architecture of claim 6 wherein the service provider records include service provider credentials for the respective service providers that may be used to authenticate a service provider.

8. (Original) The data architecture of claim 7 wherein the corresponding service provider records further include authorization information that identifies access sessions for which a respective service provider can specify a QoS and/or bandwidth allocation.

9. (Original) The data architecture of claim 8 wherein the corresponding service provider records further include billing information for access to the RAN by the ASP and/or the NSP.

10. (Original) The data architecture of claim 3 wherein the corresponding NSP access session record at the RG further includes access information for use by the RG in accessing the NSP.

11. (Original) The data architecture of claim 3 wherein the corresponding application service provider session record maintained at the RG further includes access information for use by the RG in accessing the ASP.

12. (Original) The data architecture of claim 3 further comprising:

a user associated NSP access session record maintained at the RAN that defines QoS and/or bandwidth allocation for a user associated access session between the RG and a

different NSP, wherein the RG associates the user associated access session with an individual user on the CPN;

a corresponding user associated NSP access session record maintained at the different NSP; and

a corresponding user associated NSP access session record maintained at the RG, wherein the user associated NSP access session record at the RAN and the corresponding user associated NSP access session records at the different NSP and the RG each define a QoS and/or bandwidth allocation specified by the different NSP or each define a QoS and/or bandwidth allocation specified by the RAN.

13. (Original) The data architecture of claim 12 wherein the user associated access session between the RG and a different NSP comprises a Point-to-Point Protocol (PPP) access session.

14. (Original) The data architecture of claim 3 wherein the data architecture includes a plurality of NSP access session records associated with different NSP, RG pairs and wherein the NSP access session records further include a session classifier and wherein the data architecture includes a plurality of application flow records associated with different application flows.

15. (Original) The data architecture of claim 3 wherein the CPN includes an access point used by a subscriber and wherein the data architecture further comprises an NSP access session record maintained on the CPN that includes access information for use by the subscriber in accessing the NSP and wherein the corresponding NSP access session record at the NSP further includes the access information for use by the subscriber in accessing the NSP.

16. (Original) The data architecture of claim 15 wherein the corresponding NSP access session record at the RG further includes the access information for use by the

subscriber in accessing the NSP.

17. (Original) The data architecture of claim 15 wherein the application flow associated with the RG and the ASP comprises an application flow associated with an access session that supports application service provider communications and wherein the data architecture further comprises:

an application service provider session record maintained at the RAN that defines QoS and/or bandwidth allocation for the access session that supports application service provider communications;

a corresponding application service provider session record maintained at the ASP;

a corresponding application service provider session record maintained at the RG, wherein the application service provider session record at the RAN and the corresponding application service provider session records at the ASP and RG each define a QoS and/or bandwidth allocation specified by the RAN or each define a QoS and/or bandwidth allocation specified by the ASP;

an ASP access session record maintained on the CPN that includes access information for use by the subscriber in accessing the ASP; and

wherein the corresponding application service provider session record maintained at the ASP further includes the access information for use by the subscriber in accessing the ASP.

18. (Original) The data architecture of claim 17 wherein the corresponding application service provider session record at the RG further includes the access information for use by the subscriber in accessing the ASP.

19. (Original) The data architecture of claim 17 further comprising:

a plurality of user account records maintained on the CPN and associated with the subscriber that include access information for use by the users in accessing the ASP and/or the NSP; and

a corresponding plurality of user account records maintained at the ASP and/or the NSP that include the access information for use by the users in accessing the ASP and/or the NSP.

20. (Original) A data architecture for managing Quality of Service (QoS) and/or bandwidth allocation in a Regional/Access Network (RAN) that provides end-to-end transport between a Network Service Provider (NSP) and/or an Application Service Provider (ASP), and a Customer Premises Network (CPN) that includes a Routing Gateway (RG), the architecture comprising:

a session record maintained at the RAN that defines QoS and/or bandwidth allocation for a session, wherein the session is associated with the RG and the NSP or the ASP; and

a corresponding session record maintained at the RG associated with the session, wherein the session record at the RAN and the corresponding session record at the RG both define a QoS and/or bandwidth allocation specified by the NSP or ASP associated with the session or both define a QoS and/or bandwidth allocation specified by the RAN or both define a QoS and/or bandwidth allocation specified by the RG.

21. (Original) The data architecture of claim 20 wherein the session is an access session or an application flow associated with an access session.

22. (Original) The data architecture of claim 21 wherein the session is associated with the RG and the NSP and wherein the data architecture further comprises:

an application flow record maintained at the RAN that defines QoS and/or bandwidth allocation for an application flow associated with the RG and the ASP; and

a corresponding application flow record maintained at the RG associated with the application flow, wherein both the application flow record at the RAN and the corresponding application flow record at the RG define a QoS and/or bandwidth allocation specified by the ASP or both define a QoS and/or bandwidth allocation specified by the RAN or both define a QoS and/or bandwidth allocation specified by the RG.

23. (Original) The data architecture of claim 22 wherein the application flow associated with the RG and the ASP comprises an application flow associated with an access session that supports application service provider communications and wherein the data architecture further comprises:

an application service provider session record maintained at the RAN that defines QoS and/or bandwidth allocation for the access session that supports application service provider communications; and

a corresponding application service provider session record maintained at the RG, wherein the application service provider session record at the RAN and the corresponding application service provider session record at the RG both define a QoS and/or bandwidth allocation specified by the ASP or both define a QoS and/or bandwidth allocation specified by the RAN or both define a QoS and/or bandwidth allocation specified by the RG.

24. (Original) The data architecture of claim 22 wherein the data architecture includes a plurality of session records associated with different NSP, RG pairs and wherein the session records further include a session classifier and wherein the data architecture includes a plurality of application flow records associated with different application flows.

25. (Original) A communication network including the data architecture of claim 20.

26. (Original) A communication network including the data architecture of claim 1.

27. (Original) A communication network including the data architecture of claim 2.

28. (Original) A communication network including the data architecture of claim 3.